

REMARKS/ARGUMENTS

Claims 1-24 are pending in the present application. Claims 1, 2 10, 11, 19 and 20 were amended. No claims were added or canceled. Applicants have carefully considered the cited art and the Examiner's comments, and believe the claims patentably distinguish over the cited art and are allowable in their present form. Reconsideration of the rejection is, accordingly, respectfully requested in view of the above amendments and the following comments.

I. Specification

The specification has been amended on page 14 as requested by the Examiner to ensure proper use of the JAVA trademark. In addition, the paragraph bridging pages 47 and 48 has been amended to supply missing serial number and filing date information. No new matter has been added by any of the amendments to the specification.

II. Double Patenting

The Examiner has provisionally rejected claims 1-8, 10-17 and 19-24 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-2, 4-10, 11-12, 14-20, 21-22 and 24-25 of copending application Serial No. 10/806,917.

In order to expedite prosecution, a Terminal Disclaimer is filed herewith.

Therefore, the provisional rejection of claims 1-8, 10-17 and 19-24 on the ground of non-statutory obviousness-type double patenting has been overcome.

III. 35 U.S.C. § 101

The Examiner has rejected claims 19-24 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter.

In rejecting the claims, the Examiner states:

Claim 19 recites a computer readable medium which is disclosed as signals ("digital and analog communications links, wired or wireless communications links using transmission forms, such as radio frequency, light wave transmission" paragraph 0158). The specification provides intrinsic evidence that the computer readable medium is intended to cover radio frequency and light wave transmission. Such are currently not believed to enable the computer readable medium to act as a computer hardware component and realize its functionality absent being claimed in combination with the necessary hardware to receive and convert the radio frequency and light wave to computer usable code. Claims 20-24 directly or indirectly depend on claim 19, and

therefore, have been addressed in connection with the rejection set forth to claim 19.

Office Action dated February 8, 2007, page 6.

Although Applicants' disagree that claims 19-24 are directed to non-statutory subject matter, in order to expedite prosecution, claim 19 has been amended to recite a "computer program product in a recordable-type computer readable medium." This terminology is fully supported on page 59, lines 10-12 of the specification, and clearly recites statutory subject matter.

Therefore, the rejection of claims 19-24 35 U.S.C. § 101 has been overcome.

III. 35 U.S.C. § 102, Anticipation

The Examiner has rejected claims 1-2, 5-11, 14-20, and 23-24 under 35 U.S.C. § 102(e) as being anticipated by DeWitt, Jr. et al. (United States Patent Application Publication No.: US 2005/0071817 A1), (hereinafter "DeWitt"). This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

As per claim 1:

DeWitt discloses an method in a data processing system for presenting coverage data for code, the method comprising:

- obtaining the coverage data containing instruction access indicators associated with the code ("**receiving a bundle. A bundle is a grouping of instructions**" paragraph 0073);
- identifying particular instruction access indicator that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075, **this means, the indicator has been set to indicate that the instruction is being executed**), wherein each set instruction access indicator is associated with a portion of code ("**a mark instruction is an instruction associated with a performance indicator**" paragraph 0075); and
- generating a presentation for the coverage data ("**generate a data structure, such as trees to track and present information regarding the execution of the program**" paragraph 0180), wherein the set instruction access indicators are identified in the presentation (**information regarding the execution of the program including set instruction access indicators and unset instruction access indicators**)

Note: The word "for" is recited in the preamble and the body of the claim indicates intended use and as such does not carry patentable weight. The limitations following the phrase "for" describe only intended use but not

necessarily required functionality of the claim. Applicant is advised to amend the claim so the claim limitations are recited in a definite format.

As per claim 2:

DeWitt discloses the method as in claim 1 above; and further discloses:
- identifying unset instruction access indicators that have remained unset during the execution of the code by the processor ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075, **this means that a signal is not sent when instructions associated with indicators are not present, which also means that those indicators stay unset**); wherein the unset instruction access indicators are identified in the presentation (**unset instruction access indicators must be in the tree in order to fully present the information regarding the execution of the program**).

Office Action dated February 8, 2007, pages 7-9.

Claim 1, as amended herein, is as follows:

1. A method in a data processing system of presenting coverage data for code, the method comprising:

obtaining the coverage data containing instruction access indicators associated with the code, wherein each instruction access indicator is associated with a different portion of the code, and wherein each instruction access indicator is initialized as being unset prior to execution of its associated code portion;

identifying instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators, wherein each set instruction access indicator is associated with an executed portion of the code; and

generating a presentation for the coverage data, wherein each set instruction access indicator is identified in the presentation.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single prior art reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of a claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983).

Applicants respectfully submit that DeWitt does not identically show every element of the claimed invention arranged as they are in the claims; and, accordingly, does not anticipate the claims. With respect to claim 1, in particular, DeWitt does not teach or suggest "obtaining the coverage data containing instruction access indicators associated with the code, wherein each instruction access indicator is associated with a different portion of the code, and wherein each instruction access indicator

is initialized as being unset prior to execution of its associated code portion”, and also does not disclose or suggest “identifying instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators, wherein each set instruction access indicator is associated with an executed portion of the code”, or “generating a presentation for the coverage data, wherein each set instruction access indicator is identified in the presentation.”

The Examiner refers to paragraphs [0073] and [0075] in DeWitt as disclosing the obtaining and identifying steps of claim 1. Paragraphs [0073] and [0075] of DeWitt are as follows:

[0073] Turning now to FIG. 3, a diagram illustrating components used in processing instructions associated with indicators is depicted in accordance with a preferred embodiment of the present invention. Instruction cache 300 receives bundles 302. Instruction cache 300 is an example of instruction cache 214 in FIG. 2. A bundle is a grouping of instructions. This type of grouping of instructions is typically found in an IA-64 processor, which is available from Intel Corporation. Instruction cache 300 processes instructions for execution.

[0075] When instruction cache 300 determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed. In these examples, a marked instruction is an instruction associated with a performance indicator. Alternatively, a performance indicator may indicate that all items or instructions in a bundle are marked to be counted. Additionally, signals for these instructions are sent by instruction cache 300 to the appropriate functional unit. Depending on the particular implementation, a functional unit other than performance monitor unit 306 may count execution of instructions. In the case that the performance indicators are in the instructions, or in the bundles, the cache unit, instruction cache 300, detects the indicators and sends signals to performance monitor unit 306.

The above paragraphs disclose only that when an instruction is associated with an indicator, a signal is sent to indicate that the marked instruction (i.e., an instruction associated with a performance indicator) is being executed. DeWitt does not teach or suggest that the indicators or the signals sent to indicate that the marked instructions are being executed are instruction access indicators wherein each instruction access indicator is associated with a different portion of the code, and wherein each instruction access indicator is initialized as being unset prior to execution of its associated code portion”, and also does not teach or suggest “identifying instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators, wherein each set instruction access indicator is associated with an executed portion of the code.” The indicators in DeWitt simply identify “marked instructions” and are not changed from an unset condition to a set condition by a processor in response to execution of an associated code portion as recited in claim 1.

Therefore, DeWitt does not disclose “obtaining the coverage data containing instruction access indicators associated with the code, wherein each instruction access indicator is associated with a different portion of the code, and wherein each instruction access indicator is initialized as being unset prior to execution of its associated code portion”, or “identifying instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators, wherein each set instruction access indicator is associated with an executed portion of the code.”

DeWitt also does not disclose or suggest “generating a presentation for the coverage data, wherein each set instruction access indicator is identified in the presentation” as recited in claim 1. The Examiner refers to paragraph [0180] in DeWitt as disclosing this feature. Paragraphs [0179] and [0180] of DeWitt are as follows:

[0179] Next, performance indicators are associated with the identified call and return instructions (step 2802). The program is then executed (step 2804), and data is collected from the performance monitor unit (step 2806) with the process terminating thereafter. This information may be collected through interfaces, such as hardware interface 2212 illustrated in FIG. 22 in which APIs are employed to obtain data collected by the different functional units in a processor.

[0180] With this data, identifications of callers of routines may be made. This information may be used to generate data structures, such as trees to track and present information regarding the execution of the program. This generation of data structures may be implemented using processes similar to those provided in analysis tools.

These paragraphs disclose only that data collected from the performance monitor unit 240 in DeWitt may be used to generate data structures such as trees to present information regarding execution of a program. This is not a teaching of “generating a presentation for the coverage data, wherein each set instruction access indicator is identified in the presentation” as recited in claim 1. As indicated above, DeWitt does not disclose an instruction access indicator that is changed from an unset condition to a set condition when a code portion is executed, and certainly does not disclose generating a presentation that identifies each set instruction access indicator.

Therefore, DeWitt also does not disclose or suggest “generating a presentation for the coverage data, wherein each set instruction access indicator is identified in the presentation” as recited in claim 1.

For at least all the above reasons, claim 1 is not anticipated by DeWitt and patentably distinguishes over DeWitt in its present form.

Independent claims 10 and 19 have been amended in a similar manner as claim 1, and are also not anticipated by DeWitt for similar reasons as discussed above with respect to claim 1. With respect to

independent claim 10, in particular, it should be noted that the claim has also been amended to avoid the “means for” terminology objected to by the Examiner.

Claims 2, 5-9, 11, 14-18, 20 and 23-24 depend from and further restrict one of the independent claims and are also not anticipated by DeWitt, at least by virtue of their dependency. Furthermore, many of these claims recite additional subject matter that is not disclosed or suggested by DeWitt. For example, claim 2 depends from claim 1 and is as follows:

2. The method of claim 1 further comprising:
identifying unset instruction access indicators that have remained unset during the execution of the code by the processor; wherein each unset instruction access indicator is associated with an unexecuted portion of the code, and wherein each unset instruction access indicator is identified in the presentation.

There is no teaching or suggestion in paragraphs [0075] or [0180] reproduced above, or anywhere else in DeWitt that unset instruction access indicators that have remained unset during execution of code are in any way identified in the presentation that also identifies set instruction access indicators as required in claim 1. The Examiner appears to be making an assumption that is simply not supported by any disclosure in DeWitt. Accordingly, claim 2 and corresponding claims 11 and 20 are not anticipated by DeWitt in their own right as well as by virtue of its dependency

Therefore, the rejection of claims 1-2, 5-11, 14-20, and 23-24 under 35 U.S.C. § 102(e) has been overcome.

IV. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims 3, 4, 12, 13, 21, and 22 under 35 U.S.C. § 103(a) as being unpatentable over DeWitt, in view of Lewis et al. (United States Patent Application Publication No. US 2002/0157086 A1), (hereinafter “Lewis”). This rejection is respectfully traversed.

This will confirm that the present application and the DeWitt reference (US 2005/0071817 A1) were, at the time the invention was made, both owned by International Business Machines Corporation. Accordingly, DeWitt does not qualify as a proper reference against the present application under 35 U.S.C. § 103. Accordingly, rejection of the claims over DeWitt, in view of Lewis is improper, and withdrawal of the rejection is respectfully requested.

Therefore, the rejection of claims 3, 4, 12, 13, 21, and 22 under 35 U.S.C. § 103(a) has been overcome.

V. Conclusion

For at least the reasons discussed in detail above, claims 1-24 patentably distinguish over the cited art and this application is believed to be in condition for allowance. It is, accordingly, respectfully requested that the Examiner so find and issue a Notice of Allowance in due course.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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